



ATTORNEY DOCKET NO.: EMC01-19(01056)

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Kendall A. Chilton  
Serial No.: 09/972,321  
For: METHODS AND APPARATUS FOR ACCESSING A DOUBLY LINKED  
LIST IN A DATA STORAGE SYSTEM  
Filing Date: October 5, 2001  
Examiner: Unassigned  
Art Unit: 2171

**Certificate of Mailing Under 37 C.F.R. 1.8**

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Date: November 29, 2001 By: Crystal Slason  
(Typed or printed name of person mailing  
Document, whose signature appears below)

Signature: *Crystal Slason*

Assistant Commissioner for Patents  
Washington, DC 20231

**TRANSMITTAL LETTER**

Sir:

Enclosed is/are:

- 2 -

- Transmittal Letter (this form, 2 pages, in duplicate), Total Pages: 4;
- Request for Corrected Filing Receipt, Total Pages 3;
- Copy of Utility Patent Application Transmittal, Total Pages: 4;
- Copy of First Page of Application with Certificate of Mailing, Total Pages: 1;
- Copy of Incorrect Filing Receipt, Total Pages: 2;
- Copy of Returned Postcard Date Stamped by the USPTO, Total Pages 1;
- Copy of Express Mailing Label Receipt No. EF384081052US, Total Pages: 1;
- Return Receipt Pre-paid Postcard (in duplicate), Total postcards: 2.

There is no fee required. If the U.S. Patent and Trademark Office deems a fee necessary, this fee may be charged to the account of the undersigned, Deposit Account No. 50-0901.

If the enclosed papers or fees are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned collect at (508) 366-9600, in Westborough, Massachusetts.

Respectfully submitted,



David E. Huang, Esq.  
Attorney for Applicant  
Registration No.: 39,229  
CHAPIN & HUANG, L.L.C.  
Westborough Office Park  
1700 West Park Drive  
Westborough, Massachusetts 01581  
Telephone: (508) 366-9600  
Facsimile: (508) 616-9805

Attorney Docket No.: EMC01-19(01056)

Dated: November 29, 2001



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For: METHODS AND APPARATUS FOR ACCESSING A DOUBLY  
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Date: November 29, 2001 By: Crystal Slason  
(Typed or printed name of person mailing  
Document, whose signature appears below)

Signature: Crystal Slason

---

Assistant Commissioner for Patents  
Washington, DC 20231

**REQUEST FOR CORRECTED FILING RECEIPT**

Sir:

Applicant respectfully requests that the Patent Office provide a Corrected Filing Receipt in order to correct an error that was made by the Patent Office. Enclosed is a copy of the original Filing Receipt with a change made in red ink to correct the error.

The original Filing Receipt indicates that the above-identified Application was filed on October 8, 2001. However, the Application was actually filed on October 5, 2001, and the U.S. Post Office was closed on October 8, 2001 due to a Federal Holiday.

Applicant surmises that the Patent Office inadvertently assigned October 8, 2001 as the filing date because a mark in the date field of the Express Mail Label arguably resembles the number "8". Applicant surmises that a Representative of the U.S. Post Office inadvertently wrote the wrong date (i.e., a vertical line) in the date field of the Express Mail Label, and then wrote the correct date (i.e., the number "5" for October 5, 2001) thereover thus resulting in the mark that arguably resembles the number "8". As a result, the Patent Office may have misread the filing date as October 8, 2001 rather than October 5, 2001. However, it would have been impossible for the Representative of the U.S. Post Office to receive the Application on October 8, 2001 since the U.S. Post Office was closed on October 8, 2001 due to a Federal Holiday.

As evidence of the October 5, 2001 filing date, Applicant submits (i) a copy of Applicant's Express Mail Receipt No. EF384081052US containing a circular date stamp provided by the Representative of the U.S. Post Office at the time the Application was filed. Applicant's Representative routinely requests that the U.S. Post Office provide such date stamps on Express Mail Receipts, and the date stamp on the particular Express Mail Receipt for the above-identified Application clearly shows October 5, 2001 as the filing date for the above-identified Application.

As additional evidence, Applicant provides a copy of the Application Transmittal Letter which was attached to the filed Application. The Application Transmittal Letter includes a Certificate of Mailing Under 37 C.F.R. 1.10 in which an employee of Applicant's Representative clearly certifies that she deposited the Application Transmittal Letter with the United States Postal

-3-

Service on October 5, 2001. The Patent Office should have been able to determine that October 5, 2001 is the actual filing date upon inspection of this Certificate of Mailing under 37 C.F.R. 1.10.

As further evidence, Applicant provides a copy of the first page of the Specification. This first page of the Specification includes a Certificate of Mailing Under 37 C.F.R. 1.10 in which the employee of Applicant's Representative clearly certifies that she deposited the Specification with the United States Postal Service on October 5, 2001. Again, the Patent Office should have been able to determine that October 5, 2001 is the actual filing date upon inspection of this Certificate of Mailing under 37 C.F.R. 1.10.

For the reasons stated above, it should be clear that the actual filing date for the above-identified Application is October 5, 2001. Accordingly, the Patent Office should provide a Corrected Filing Receipt indicating that October 5, 2001 is the filing date. Since this error was made by the Patent Office, there is no fee required for this correction.

Respectfully submitted,



David E. Huang, Esq.  
Attorney for Applicant  
Registration No.: 39,229  
CHAPIN & HUANG, L.L.C.  
Westborough Office Park  
1700 West Park Drive  
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Facsimile: (508) 616-9805

Attorney Docket No.: EMC01-19(01056)

Dated: November 29, 2001



ATTORNEY DOCKET NO.: EMC01-19(01056)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kendell A. Chilton  
Serial No.: Unassigned  
For: METHODS AND APPARATUS FOR ACCESSING DOUBLY LINKED  
LIST IN A DATA STORAGE SYSTEM  
Filing Date: October 5, 2001  
Examiner: Unassigned  
Art Unit: Unassigned

**FILE COPY**

**UTILITY PATENT APPLICATION TRANSMITTAL**

Certificate of Mailing Under 37 C.F.R. 1.10

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail in an envelope addressed to: **BOX PATENT APPLICATION**, Assistant Commissioner for Patents, Washington, DC 20231 on:

Date: October 5, 2001

By: Crystal Slason  
(Typed or printed name of person mailing Document, whose signature appears below)

Express Mail Mailing  
Label No. EF384081052US

Signature: Crystal Slason

**BOX PATENT APPLICATION**  
Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

Transmitted herewith for filing is a patent application entitled:

**METHODS AND APPARATUS FOR ACCESSING DOUBLY LINKED LIST  
IN A DATA STORAGE SYSTEM**

EF 384081052 US



- 1 -

Certificate of Mailing Under 37 C.F.R. 1.10

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail in an envelope addressed to: **BOX PATENT APPLICATION, Assistant Commissioner for Patents, Washington, DC 20231** on:

Date: October 5, 2001Express Mailing Label No.: EF384081052USSignature: Crystal SlasonTyped or Printed Name: Crystal SlasonInventor: Kendell A. ChiltonAttorney's Docket No.: EMC01-19(01056)

**METHODS AND APPARATUS FOR ACCESSING A DOUBLY LINKED LIST  
IN A DATA STORAGE SYSTEM**

5

**BACKGROUND OF THE INVENTION**

A typical data storage system includes processing circuitry and a set of disk drives. In general, the processing circuitry stores data in the set of disk drives and retrieves data from the set of disk drives on behalf of one or more external hosts. The 10 processing circuitry typically includes a set of processor circuit boards (or simply CPU boards), a set of memory circuit boards (or simply memory boards), and an interconnect (e.g., a backplane) that enables the CPU boards and the memory boards to communicate with each other. The memory boards provide volatile storage space which the CPU boards use as both input/output (I/O) memory and system memory. The I/O memory,

Named Inventor(s) / Inventor Address(es) / Inventor Citizenship(s):

Kendell A. Chilton  
12 Wolfpen Lane  
Southborough, Massachusetts 01772

Citizenship: United States of America

Enclosed is/are:

- [x] Transmittal Letter including fee calculations (this form, 4 pages, in duplicate),  
Total Pages: 8;
- [x] Utility Patent Application Specification including Title of the Invention,  
Background of the Invention, Summary of the Invention, Brief Description of the  
Drawings, Detailed Description; 22 Claims (4 Independent, 18 dependent),  
Abstract of the Disclosure, Total Pages: 32;
- [x] Drawings: [x] Formal, [ ] Informal (Figs: 1, 2, 3, 4, 5, 6, 7, 8, 9), Total Sheets: 9;
- [x] Newly Executed Oath/Declaration/Power Of Attorney, Total Pages: 2;
- [x] REQUEST AND CERTIFICATION UNDER 35 U.S.C. 122(b)(2)(B)(i); Total  
Pages: 1;
- [x] Assignment Papers (Assignment Recordation Cover Sheet 1 page, Copy of  
Assignment Document 2 pages), Total Pages: 3;
- [x] Information Disclosure Statement, Total Pages: 3;
- [x] PTO-1449 Form, Total Pages: 1;
- [x] Copies of Cited References each with Attached Cover Sheet,  
Total References 2;
- [x] Return Receipt Pre-paid Postcard (in duplicate), Total Postcards: 2;
- [x] Authorization to Charge Deposit Account No. 50-0901, if Required;
- [x] Check in the amount of: \$900.00, with fee amounts calculated as follows:

| CLAIMS                                  | Number Filed | Number Extra | Rate   | Calculations |
|---|--------------|--------------|--------|--------------|
| Total Claims                            | 22-20 =      | 2            | x \$18 | \$ 36.00     |
| Independent Claims                      | 4-3 =        | 1            | x \$84 | \$ 84.00     |
| Multiple Independent Claims             |              | + 260 =      |        | \$ 0.00      |
| BASIC FILING FEE =                      |              |              |        | \$740.00     |
| Total of Above Calculations =           |              |              |        | \$860.00     |
| Assignment Recordation Fee =            |              |              |        | \$ 40.00     |
| TOTAL FEE FOR THIS PATENT APPLICATION = |              |              |        | \$900.00     |

Please direct all telephone calls and address all correspondence to:

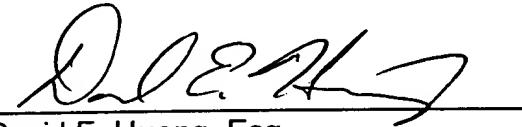
David E. Huang, Esq.  
Attorney for Applicant  
USPTO Registration No. 39,229  
CHAPIN & HUANG, L.L.C.  
Westborough Office Park  
1700 West Park Drive  
Westborough, Massachusetts 01581  
United States of America  
Telephone: (508) 366-9600  
Facsimile: (508) 616-9805

If the enclosed fee is insufficient, the balance may be charged to the account of the undersigned, Deposit Account No. 50-0901.

- 4 -

If the enclosed papers or fees are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned collect at (508) 366-9600, in Westborough, Massachusetts.

Respectfully submitted,

By: 

David E. Huang, Esq.  
Attorney for Applicant  
U.S.P.T.O. Registration No.: 39,229  
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United States of America  
Telephone: (508) 366-9600  
Facsimile: (508) 616-9805

Attorney Docket No.: EMC01-19(01056)

Dated: October 5, 2001



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## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
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www.uspto.gov

| APPLICATION NUMBER | FILING DATE | GRP ART UNIT | FIL FEE REC'D | ATTY.DOCKET.NO      | DRAWINGS | TOT CLAIMS | IND CLAIMS |
|--------------------|-------------|--------------|---------------|---------------------|----------|------------|------------|
| 09/972,321         | 10/08/2001  | 2171         | 860           | EMC01-19<br>(01056) | 9        | 22         | 4          |

CONFIRMATION NO. 5008

## FILING RECEIPT



'OC000000007048049'

David E. Huang, Esq.  
CHAPIN & HUANG, L.L.C.  
Westborough Office Park  
1700 West Park Drive  
Westborough, MA 01581

Date Mailed: 11/09/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Kendell A. Chilton, Southborough, MA;

## Domestic Priority data as claimed by applicant

## Foreign Applications

If Required, Foreign Filing License Granted 11/08/2001

Projected Publication Date: Request for Non-Publication Acknowledged

Non-Publication Request: Yes

Early Publication Request: No

## Title

Methods and apparatus for accessing a doubly linked list in a data storage system

## Preliminary Class

707



**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

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**COPY**



Initials: DEH

Docket No.: EMC01-19(01056)

Mailing Date: October 5, 2001

This is to acknowledge receipt of X NEW PATENT APPLICATION as follows:

- Transmittal Letter including fee calculations (4 pages, in duplicate), Total Pages: 8;
- Utility Patent Application Specification including Title of the Invention, Background of the Invention, Summary of the Invention, Brief Description of the Drawings, Detailed Description; 22 Claims (4 Independent, 18 dependent), Abstract of the Disclosure, Total Pages: 32;
- Drawings: [x] Formal, [ ] Informal (Figs: 1, 2, 3, 4, 5, 6, 7, 8, 9), Total Sheets: 9;
- Newly Executed Oath/Declaration/Power Of Attorney, Total Pages: 2;
- REQUEST AND CERTIFICATION UNDER 35 U.S.C. 122(b)(2)(B)(i); Total Pages: 1;
- Assignment Papers (Assignment Recordation Cover Sheet 1 page, Copy of Assignment Document 2 pages), Total Pages: 3;
- Information Disclosure Statement, Total Pages: 3;
- PTO-1449 Form, Total Pages: 1;
- Copies of Cited References each with Attached Cover Sheet, Total References 2;
- Return Receipt Pre-paid Postcard (in duplicate), Total Postcards: 2;
- Authorization to Charge Deposit Account No. 50-0901, if Required;
- Check in the amount of: \$900.00.

Applicant:

Kendell A. Chilton  
**METHODS AND APPARATUS FOR ACCESSING DOUBLY LINKED LIST  
IN A DATA STORAGE SYSTEM**

Express Mailing Label No.: EF384081052US

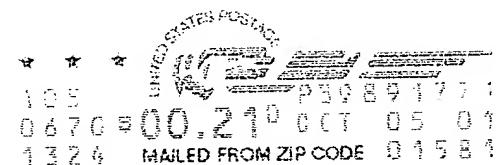
Date received by the PTO:

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09/972321



10/08/01

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**CHAPIN & HUANG, L.L.C.**  
**WESTBOROUGH OFFICE PARK**  
**1700 WEST PARK DRIVE**  
**WESTBOROUGH, MASSACHUSETTS 01581**



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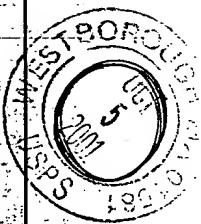
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